

1           1.    A computer implemented method of synchronizing  
2   at least a first and a second database, the method  
3   comprising:  
4           identifying a plurality of records of the first  
5   database fitting a selected criterion; and  
6           synchronizing at least one of the identified records  
7   of the first database with a record of the second database.

1           2.    The method of claim 1 wherein records  
2   representative of the records of one of the first and second  
3   databases during a prior synchronization are stored in a  
4   history file, and wherein synchronizing the at least one of  
5   the identified records of the first database with a record  
6   of the second database further includes using the history  
7   file.

1           3.    The method of claim 1 further comprising  
2   identifying records of the first database based on a  
3   selected criterion, wherein synchronizing the at least one  
4   of the identified records of the first database with a  
5   record of the second database further includes synchronizing  
6   the at least one of the identified records of the first  
7   database with at least one of the identified records the  
8   second database.

1           4.    The method of claim 1 wherein synchronizing the  
2   at least one of the identified records of the first database  
3   includes adding, modifying, or deleting the at least one of  
4   the identified records of the first database.

1           5.    The method of claim 1 wherein records of the  
2 first database include a text field and the selected  
3 criterion includes a text criterion, and identifying the  
4 plurality records of the first database includes comparing  
5 the text field with the text criterion.

1           6.    The method of claim 1 wherein records of the  
2 first database include a number field and the selected  
3 criterion includes a number criterion, and identifying the  
4 plurality records of the first database includes comparing  
5 the number field with the number criterion.

1           7.    The method of claim 1 wherein records of the  
2 first database include a date field and the selected  
3 criterion includes a date criterion, and identifying the  
4 plurality records of the first database includes comparing  
5 the date field with the date criterion.

1           8.    The method of claim 1 wherein records of the  
2 first database include a boolean field and the selected  
3 criterion includes a boolean criterion, and identifying the  
4 plurality records of the first database includes comparing  
5 the boolean field with the boolean criterion.

1           9.    The method of claim 1 wherein records of the  
2 first database include a time field and the selected  
3 criterion includes a time criterion, and identifying the  
4 plurality records of the first database includes comparing  
5 the time field with the time criterion.

1           10.   The method of claim 1 wherein a selected  
2 plurality of the fields of the records of the first database  
3 are mapped onto a selected plurality of corresponding fields

4 of the records of the second database and identifying a  
5 plurality of records of the first database fitting a  
6 selected criterion includes determining whether contents of  
7 a field of the records of the first database fit the  
8 selected criterion, wherein the field of the records of the  
9 first database is not mapped onto a corresponding field of  
10 the records of second database.

1 11. The method of claim 1 wherein the first  
2 database is located on a first computer and the second  
3 database located on a second computer, the method further  
4 comprising:

5 determining, at the first computer, whether a record  
6 of the first database has been changed or added since a  
7 previous synchronization, using a first history file located  
8 on the first computer comprising records representative of  
9 records of the first database at the completion of the  
10 previous synchronization;

11 if the record of the first database has not been  
12 changed or added since the previous synchronization, sending  
13 from the first computer to the second computer information  
14 which the second computer uses to identify the record of the  
15 first database to be unchanged.

1 12. The method of claim 11 wherein identifying the  
2 plurality of records of the first database is performed at  
3 the first computer.

1           13. The method of claim 11 wherein identifying the  
2 plurality of records of the first database is performed at  
3 the second computer.

1           14. The method of claim 1 further comprising:  
2           determining whether the records of the first  
3 database have been changed or added since the previous  
4 synchronization, based on data reflecting whether the  
5 records of the first database have been added or changed  
6 since a previous synchronization;

7           if one of the records of the first database has not  
8 been changed or added since the previous synchronization,  
9 performing a synchronization with records of the second  
10 database using a record representative of the one record at  
11 the time of a previous synchronization, the representative  
12 record being stored in a history file containing records  
13 reflecting the contents of records of the first database at  
14 the time of a previous synchronization.

1           15. The method of claim 14 wherein the history file  
2 contains at least one record representative of at least one  
3 record of the first database failing to fit the selected  
4 criterion at the time of the previous synchronization and  
5 failing to be synchronized with the records of the second  
6 database at the time of the previous synchronization.

1           16. The method of claim 1 further comprising:  
2           deleting a second plurality of the records of the  
3 first database failing to fit the selected criterion.

1           17. The method of claim 16 further comprising:

2 updating a plurality of records of the second  
3 database failing to fit the current value of the selected  
4 criterion.

1 18. The method of claim 1 wherein the selected  
2 criterion has a current value during a current  
3 synchronization being different from a previous value during  
4 a previous synchronization, further comprising:

5 updating a plurality of records of the second  
6 database, based on results of the synchronization, wherein  
7 the plurality of records of the second database fit the  
8 previous value of the selected criterion but fail to fit the  
9 current value of the selected criterion.

1 19. The method of claim 1 further comprising  
2 synchronizing a third database with one of the first and  
3 second databases.

1 20. The method of claim 19 wherein synchronizing  
2 the third database with one of the first and second  
3 databases includes:

4 identifying a plurality of records of a third  
5 database fitting a second selected criterion; and

6 synchronizing at least one of the identified records  
7 of the third database with a second record of the one of the  
8 first and second databases.

1 21. The method of claim 20 wherein the first-  
2 mentioned selected criteria and the second selected criteria  
3 are the same.

1           22. The method of claim 20 wherein the second  
2 record of the one of the first and second databases includes  
3 a code identifying the second record as having originated  
4 from the third database.

1           23. A computer program, resident on a computer  
2 readable medium, for synchronizing at least a first and a  
3 second database, comprising instructions for :  
4           identifying a plurality of records of the first  
5 database fitting a selected criterion; and  
6           synchronizing at least one of the identified records  
7 of the first database with a record of the second database.

1           24. The computer program of claim 23 wherein  
2 records representative of the records of the first and  
3 second databases during a prior synchronization are stored  
4 in a history file, and wherein synchronizing the at least  
5 one of the identified records of the first database with a  
6 record of the second database further includes using the  
7 history file.

1           25. The computer program of claim 23 further  
2 comprising instructions for identifying records of the first  
3 database based on a selected criterion, wherein  
4 synchronizing the at least one of the identified records of  
5 the first database with a record of the second database  
6 further includes synchronizing the at least one of the  
7 identified records of the first database with at least one  
8 of the identified records the second database.

1           26. The computer program of claim 23 wherein  
2 synchronizing the at least one of the identified records of  
3 the first database includes adding, modifying, or deleting  
4 the at least one of the identified records of the first  
5 database.

1           27. The computer program of claim 23 wherein  
2 records of the first database include a text field and the  
3 selected criterion includes a text criterion, and  
4 identifying the plurality records of the first database  
5 includes comparing the text field with the text criterion.

1           28. The computer program of claim 23 wherein  
2 records of the first database include a number field and the  
3 selected criterion includes a number criterion, and  
4 identifying the plurality records of the first database  
5 includes comparing the number field with the number  
6 criterion.

1           29. The computer program of claim 23 wherein  
2 records of the first database include a date field and the  
3 selected criterion includes a date criterion, and  
4 identifying the plurality records of the first database  
5 includes comparing the date field with the date criterion.

1           30. The computer program of claim 23 wherein  
2 records of the first database include a boolean field and  
3 the selected criterion includes a boolean criterion, and  
4 identifying the plurality records of the first database  
5 includes comparing the boolean field with the boolean  
6 criterion.

1           31. The computer program of claim 23 wherein  
2 records of the first database include a time field and the  
3 selected criterion includes a time criterion, and  
4 identifying the plurality records of the first database  
5 includes comparing the time field with the time criterion.

1           32. The computer program of claim 23 wherein a  
2 selected plurality of the fields of the records of the first  
3 database are mapped onto a selected plurality of  
4 corresponding fields of the records of the second database  
5 and identifying a plurality of records of the first database  
6 fitting a selected criterion includes determining whether  
7 contents of a field of the records of the first database fit  
8 the selected criterion, wherein the field of the records of  
9 the first database is not mapped onto a corresponding field  
10 of the records of second database.

1           33. The computer program of claim 20 wherein the  
2 first database is located on a first computer and the second  
3 database located on a second computer, the computer program  
4 further comprising instructions for:

5           determining, at the first computer, whether a record  
6 of the first database has been changed or added since a  
7 previous synchronization, using a first history file located  
8 on the first computer comprising records representative of  
9 records of the first database at the completion of the  
10 previous synchronization;

11           if the record of the first database has not been  
12 changed or added since the previous synchronization, sending  
13 from the first computer to the second computer information  
14 which the second computer uses to identify the record of the  
15 first database to be unchanged.



1           34. The computer program of claim 33 wherein  
2 identifying the plurality of records of the first database  
3 is performed at the first computer.

1           35. The computer program of claim 33 wherein  
2 identifying the plurality of records of the first database  
3 is performed at the second computer.

1           36. The computer program of claim 23 further  
2 comprising instructions for:

3           determining whether the records of the first  
4 database have been changed or added since the previous  
5 synchronization, based on data reflecting whether the  
6 records of the first database have been added or changed  
7 since a previous synchronization;

8           if one of the records of the first database has not  
9 been changed or added since the previous synchronization,  
10 performing a synchronization with records of the second  
11 database using a record representative of the one record at  
12 the time of a previous synchronization, the representative  
13 record being stored in a history file containing records  
14 reflecting the contents of records of the databases at the  
15 time of a previous synchronization.

1           37. The computer program of claim 36 wherein the  
2 history file contains at least one record representative of  
3 at least one record of the first database failing to fit the  
4 selected criterion at the time of the previous  
5 synchronization and failing to be synchronized with the  
6 records of the second database at the time of the previous  
7 synchronization.

1           38. The computer program of claim 23 further  
2 comprising instructions for:

3           deleting a second plurality of the records of the  
4 first database failing to fit the selected criterion.

1           39. The computer program of claim 38 further  
2 comprising instructions for:

3           updating a plurality of records of the second  
4 database failing to fit the current value of the selected  
5 criterion.

1           40. The computer program of claim 23 wherein the  
2 selected criterion has a current value during a current  
3 synchronization being different from a previous value during  
4 a previous synchronization, further comprising instructions  
5 for:

6           updating a plurality of records of the second  
7 database, based on results of the synchronization, wherein  
8 the plurality of records of the second database fit the  
9 previous value of the selected criterion but fail to fit the  
10 current value of the selected criterion.

1           41. The computer program of claim 23 further  
2 comprising instructions for synchronizing a third database  
3 with one of the first and second databases.

1           42. The computer program of claim 41 wherein  
2 synchronizing the third database with one of the first and  
3 second databases includes instructions for:  
4           identifying a plurality of records of a third  
5 database fitting a second selected criterion; and  
6           synchronizing at least one of the identified records  
7 of the third database with a second record of the one of the  
8 first and second databases.

1           43. The method of claim 42 wherein the first-  
2 mentioned selected criteria and the second selected criteria  
3 are the same.

1           44. The computer program of claim 42 wherein the  
2 second record of the second database includes a code  
3 identifying the second record of the second database as  
4 having originated from the third database.

1           45. A computer implemented method of synchronizing  
2 at least a first and a second database, the method  
3 comprising:  
4           displaying a record selection criteria input region  
5 on a computer display for a user to input a record selection  
6 criteria, and  
7           synchronizing, at a synchronization program, the  
8 first database with the second database using the record  
9 selection criteria.

1           46. The method of claim 45 further comprising:  
2           transmitting the record selection criteria to a  
3 database manager, wherein the database manager manages the  
4 first database,  
5           selecting, at the database manager, records of the  
6 first database fitting the record selection criteria, and  
7           transmitting the selected records to the  
8 synchronization program.

1           47. The method of claim 45 further comprising:  
2           selecting, at the synchronization program, records  
3 of the first database fitting the record selection criteria.

1           48. A computer program, resident on a computer  
2 readable medium, for synchronizing at least a first and a  
3 second database, comprising instructions for:  
4           displaying a record selection criteria input region  
5 on a computer display for a user to input a record selection  
6 criteria, and  
7           synchronizing the first database with the second  
8 database using the record selection criteria.

1           49. The synchronization program of claim 48 further  
2 comprising instructions for:  
3           transmitting the record selection criteria to a  
4 database manager, wherein the database manager manages the  
5 first database, selects records of the first database  
6 fitting the record selection criteria, and transmits the  
7 selected records to the synchronization program.

1           50. The synchronization program of claim 48 further  
2 comprising instructions for:  
3           selecting records of the first database fitting the  
4 record selection criteria.